

IN THE SPECIFICATION

Please amend the paragraph beginning on page 6, line of 7 and continuing on to page 7, line 14 of the specification as originally filed as follows:

A first embodiment of a portable heating pack in accordance with the present invention is shown in FIG. 1. The portable heating pack 10 comprises a container 11 with a supercorroding metallic alloy powder 12 disposed therein. The supercorroding metallic alloy powder 12 is adapted to corrode and provide heat 13 upon contacting a liquid 14, preferably water. The portable heating pack further comprises a material adapted to consume hydrogen and/or a hydrogen storage material intimately mixed with the supercorroding metallic alloy powder. The container is adapted to receive a liquid 14 corrosive to the supercorroding metallic alloy powder and allow the corrosive liquid to contact and corrode the supercorroding metallic alloy. The corrosive liquid 14 may be water or an electrolyte solution. Materials adapted to activate the supercorroding metallic alloy powder may also be included in the corrosive liquid where the supercorroding metallic alloy powder is unactivated as a safety precaution. To allow the corrosive liquid 14 to better contact the supercorroding metallic alloy powder 12, the supercorroding alloy powder may be affixed to a matrix material or support. The matrix material or support may be thermally conductive to provide increased thermal conductivity

between the contents and the exterior heating surface of the portable heating pack. The container 11 is preferably constructed from materials that are unreactive with the environment within the container and are capable of withstanding temperatures and pressures present within the container during operation of the portable heating pack. The container 11 is preferably constructed from thermally conductive metals or polymers allowing substantially all of the heat produced within the container to be transferred to the container exterior. The container 11 may also be designed to focus the heat produced inside the container to a specific area of the container exterior. The container may also be rigid or flexible depending on the application.

Please amend the paragraph beginning on page 7, line of 15 and continuing on to page 8, line 6 of the specification as originally filed as follows:

A second embodiment of the present invention is shown in FIG. 2. The portable heating pack 10 in accordance with the second embodiment of the present invention comprises a container 11 with a supercorroding metallic alloy powder 12 disposed therein, and a metal hydride hydrogen storage vessel 15, the hydrogen storage vessel 15 being in gaseous communication with the first container 11. The portable heating pack 10 may further include a hydrogen consuming oxide material adapted to consume hydrogen produced upon

corrosion of the supercorroding alloy powder in the container. Preferably, the hydrogen consuming oxide material is intimately mixed with the supercorroding alloy powder. In this embodiment, the hydrogen produced from the corrosion of the supercorroding alloy powder is absorbed by the hydrogen storage alloy utilized in the metal hydride hydrogen storage vessel and/or allowed to react with the oxide thus eliminating the danger of accumulated hydrogen gas release.

Please amend the paragraph beginning on page 8, line of 7 and continuing on to page 8, line 22 of the specification as originally filed as follows:

The container 11 is adapted to receive a liquid corrosive to the supercorroding metallic alloy powder and allow the corrosive liquid 14 to contact and corrode the supercorroding metallic alloy 12. The corrosive liquid 14 may be water or an electrolyte solution. Materials adapted to activate the supercorroding metallic alloy powder 12 may also be included in the corrosive liquid 14. To allow the corrosive liquid 14 to better contact the supercorroding metallic alloy powder 12, the powder may be affixed to a matrix material or support. Upon entering the container 11, the corroding liquid contacts the supercorroding metallic alloy powder. The supercorroding metallic alloy powder begins to corrode resulting in the production of heat 13 and hydrogen gas. Heat is

transferred to the exterior of the portable heating pack while the hydrogen produced as a result of the corrosion is consumed by the hydrogen consuming oxide material and/or transferred to the hydrogen storage vessel and stored in hydride form.

Please amend the paragraph beginning on page 8, line of 23 and continuing on to page 9, line 16 of the specification as originally filed as follows:

The hydrogen storage vessel 15 is adapted to receive and store hydrogen produced as a result of the corrosion of the supercorroding metallic alloy powder 12 in the first container in metal hydride form. The hydrogen storage vessel 15 may be positioned inside or outside of the container. The absorption of gaseous hydrogen by the hydrogen storage alloy is accompanied by heat generation. The heat produced by the absorption of hydrogen into the hydrogen storage alloy may be used as a secondary source of heat within the heating pack. Alternately, the production of heat of hydride formation may result in a smaller amount of the supercorroding alloy being used within the portable heating pack. Once the hydrogen storage material stored in the hydrogen storage vessel becomes fully hydrided, the hydrogen storage vessel may be removed and replaced with a hydrogen storage vessel having an unhydrided hydrogen storage material stored therein. The hydrogen storage vessel having the hydrided hydrogen storage alloy stored

therein may be used as a source of hydrogen for hydrogen fueled applications.